## **EAST Search History**

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L5	20	(US-2604164-\$ or US-2772735-\$ or US-3119292-\$ or US-6035688-\$ or US-6009783-\$ or US-5845553-\$ or US-5247862-\$ or US-4785695-\$ or US-4463637-\$ or US-4267753-\$ or US-3570343-\$ or US-3440909-\$ or US-3211034-\$).did. or (JP-07097656-\$ or JP-58215237-\$ or JP-60102245-\$ or JP-07034190-\$ or JP-07300653-\$ or JP-09176785-\$ or JP-09176786-\$).did.	USPAT; JPO	OR	OFF	2007/03/26 07:46
L6	1	ag\$3 and L5	USPAT	OR	OFF	2007/03/26 07:49
L7	21	aging and "medium carbon steel"	USPAT	OR	OFF	2007/03/26 07:56
L8	709	aging and crankshaft	USPAT	OR	OFF	2007/03/26 08:36
L9	6	aging and crankshaft and martensite	USPAT	OR	OFF	2007/03/26 08:02
L10	0	aging and crankshaft and spheroid	USPAT	OR	ON	2007/03/26 08:02
L11	2	aging and crankshaft and spheroidiz\$3	USPAT	OR	ON	2007/03/26 08:03
L12	1	"5236521".PN.	USPAT; USOCR	OR	OFF	2007/03/26 08:06
L13	1	"5102619".PN.	USPAT; USOCR	OR	OFF	2007/03/26 08:08
L14	1	"4662953".PN.	USPAT; USOCR	OR	OFF	2007/03/26 08:08
L15	14	aging and crankshaft and forging	USPAT	OR	OFF	2007/03/26 08:10
L16	56	aging and crankshaft and steel	USPAT	OR	OFF	2007/03/26 08:36
S1		("6035688" "6009783" "5845553" "5247862" "4785695" "4463637" "4267753" "3570343" "3440909" "3211034" "3119292" "2772735" "2604164" "58215237" "60102245" "07034190" "07097656" "09176785" "09176786" "07300653").PN.	USPAT; JPO	OR	ON	2007/03/15 08:13
S2	20	(US-2604164-\$ or US-2772735-\$ or US-3119292-\$ or US-6035688-\$ or US-6009783-\$ or US-5845553-\$ or US-5247862-\$ or US-4785695-\$ or US-4463637-\$ or US-3270343-\$ or US-3211034-\$).did. or (JP-07097656-\$ or JP-58215237-\$ or JP-60102245-\$ or JP-07034190-\$ or JP-07300653-\$ or JP-09176785-\$ or JP-09176786-\$).did.	USPAT; JPO	OR	OFF	2007/03/15 08:39

## **EAST Search History**

S3         0         spherodiz\$3 and draw\$3 and "cold forg\$3" and billet and blank and S2.         USPAT         OR         OFF         2007/03/23 13:09 forg\$3" and billet and blank and S2.           S4         0         spherodiz\$3 and draw\$3 and "cold forg\$3" and billet and blank and S2.         USPAT         OR         OFF         2007/03/23 13:24           S5         0         spherodiz\$3 and draw\$3 and forg\$3 and billet and blank and S2.         USPAT; PPO; JPO         OR         ON         2007/03/15 08:43 and billet and blank and S2.           S7         0         spherodiz\$3 and draw\$3 and forg\$3 and billet and S2.         USPAT; PPO; JPO         OR         ON         2007/03/15 08:43 and billet and S2.           S8         0         spherodiz\$3 and draw\$3 and forg\$3 and S2.         USPAT; PPO; JPO         OR         ON         2007/03/15 08:43 and S2.           S9         0         spherodiz\$3 and S2.         USPAT; PPO; JPO         OR         ON         2007/03/15 08:43 and S2.           S10         0         anneal\$3 and S2.         USPAT; PPO; JPO         OR         ON         2007/03/15 08:43 and S2.           S11         6         forg\$3 and annealing and S2.         USPAT; PPO; JPO         OR         ON         2007/03/15 08:45 and S2.           S12         0         forg\$3 and draw\$3 and S2.         USPAT; PPO; JPO <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>							
Forg\$3" and billet and blank and S2	S3	0		USPAT	OR	OFF	2007/03/23 13:09
### Spherodiz\$3 and draw\$3 and forg\$3 and billet and blank and \$2	S4	0		USPAT	OR	OFF.	2007/03/23 13:24
Second   Spherodiz\$3 and draw\$3 and forg\$3   USPAT;   DR   DN   2007/03/15 08:43	S5	0		USPAT	OR	ON	2007/03/15 08:42
S8	S6	0			OR	ON	2007/03/15 08:43
S9 0 spherodiz\$3 and S2 USPAT; EPO; JPO OR ON 2007/03/15 08:43 EPO; JPO OR ON 2007/03/15 08:43 EPO; JPO OR ON 2007/03/15 08:44 EPO; JPO OR ON 2007/03/15 08:44 EPO; JPO OR ON 2007/03/15 08:46 EPO; JPO OR ON 2007/03/15 08:45 EPO; JPO OR ON 2007/03/15 08:45 EPO; JPO OR ON 2007/03/15 08:46 EPO; JPO OR OR ON 2007/03/15 08:46 EPO; JPO OR OR OR 2007/03/15 08:46 EPO; JPO OR OR OR 2007/03/15 08:46 EPO; JPO OR OR OR 2007/03/15 08:46 EPO; JPO OR OR 2007/03/15 08:46 EPO; JPO OR OR OFF 2007/03/19 14:28 "JPO OR OR 2007/03/19 14:28 "JPO OR OR 2007/03/19 14:29 USPAT; JPO OR OR OFF 2007/03/19 14:29 USPAT; JPO OR OR OR 2007/03/23 13:09 forg\$3" USPAT OR OR OFF 2007/03/23 13:10 forg\$3" USPAT OR OR OFF 2007/03/23 13:10 USPAT OR OR OFF 2007/03/23 13:11 USPAT OR OR OFF 2007/03/23 13:11 USPAT OR OR OFF 2007/03/23 13:11 USPAT OR OR OFF 2007/03/23 13:12 USPAT; JPO US-3119292-\$ or US-6035688-\$ or US-6035688-\$ or US-6035688-\$ or US-6035688-\$ or US-5047662-\$ or US-4267753-\$ or US-321034-\$).did. OR USPAT OR OR OFF 2007/03/23 13:24 USPAT OR US-321034-\$).did. OR USPAT OR OFF 2007/03/23 13:24 USPAT OR US-321034-\$).did. OR US-321034-\$).did. OR US-321034-\$).did. OR US-321034-\$).did. OR USPAT OR OFF 2007/03/23 13:24 USPAT OR US-30076053-\$ or US-403668-\$ or US-406053-\$ or US-403668-\$ or US-406053-\$ or US-403668-\$ or US-406058-\$ or US-406053-\$ or US-403668-\$ or US-406053-\$ or US-403663-\$ or US-403663-\$ or US-40363-\$	S7	0	, ,	•	OR	ON	2007/03/15 08:43
S10	S8	0	, · · · · · · · · · · · · · · · · · · ·	•	OR	ON	2007/03/15 08:43
EPO; JPO	S9	0	spherodiz\$3 and S2	,	OR	ON	2007/03/15 08:43
Size   Decomposition   Size   Size   Size   Size   Size   Decomposition   Size   Siz	S10	0	anneal\$3 and S2		OR	ON	2007/03/15 08:44
Signature   Sign	S11	6	forg\$3 and S2	,	OR	ON .	2007/03/15 08:46
S21	S12	0	forg\$3 and annealing and S2	,	OR	ON	2007/03/15 08:45
S23       4       ("61129246" "4375378" "6053023" "JPO       USPAT; JPO       OR OFF       2007/03/19 14:28 2007/03/19 14:28 JPO         S24       2       ("3711338" "4971634").PN.       USPAT; JPO       OR OFF       2007/03/19 14:29 2007/03/19 14:29 JPO         S25       0       spherodiz\$3 and draw\$3 and "cold forg\$3"       USPAT       OR OFF       2007/03/23 13:09 2007/03/23 13:10 JPO         S26       0       spheroidiz\$3 and draw\$3 and "cold forg\$3"       USPAT       OR OFF       2007/03/23 13:10 JPO         S27       68       spheroidiz\$3 and draw\$3 and forg\$3       USPAT       OR OFF       2007/03/23 13:10 JPO         S28       20       (US-2604164-\$ or US-2772735-\$ or US-6035688-\$ or US-5845553-\$ or US-5845553-\$ or US-5845553-\$ or US-4663637-\$ or US-4267753-\$ or US-4267753-\$ or US-3211034-\$).did. or (JP-07097656-\$ or JP-58215237-\$ or JP-60102245-\$ or JP-58215237-\$ or JP-60102245-\$ or JP-07034190-\$ or JP-07300653-\$ or JP-09176785-\$ or JP-09176786-\$).did.       OFF       2007/03/23 13:24         S29       0       spheroidiz\$3 and draw\$3 and forg\$3       USPAT       OR       OFF       2007/03/23 13:24	S13	1	forg\$3 and draw\$3 and S2		OR	ON	2007/03/15 08:46
"3532560").PN.   JPO   USPAT;   OR   OFF   2007/03/19 14:29	S21	1	"4751048".PN.	USPAT	OR	OFF	2007/03/16 08:14
S25   0   spherodiz\$3 and draw\$3 and "cold forg\$3"   USPAT   OR   OFF   2007/03/23 13:09	S23	. 4	, •		OR	OFF	2007/03/19 14:28
Forg\$3"  S26	S24	2	("3711338" "4971634").PN.		OR	OFF	2007/03/19 14:29
forg\$3"  S27 68 spheroidiz\$3 and draw\$3 and forg\$3 USPAT OR OFF 2007/03/23 13:11  S28 20 (US-2604164-\$ or US-2772735-\$ or US-3119292-\$ or US-6035688-\$ or US-6009783-\$ or US-5845553-\$ or US-5247862-\$ or US-4785695-\$ or US-3463637-\$ or US-4267753-\$ or US-3211034-\$).did. or (JP-07097656-\$ or JP-58215237-\$ or JP-60102245-\$ or JP-07034190-\$ or JP-07300653-\$ or JP-09176785-\$ or JP-09176786-\$).did.  S29 0 spheroidiz\$3 and draw\$3 and forg\$3 USPAT OR OFF 2007/03/23 13:24	S25	0	l •	USPAT	OR	OFF	2007/03/23 13:09
S28 20 (US-2604164-\$ or US-2772735-\$ or US-3119292-\$ or US-6035688-\$ or US-6009783-\$ or US-5845553-\$ or US-5247862-\$ or US-4267753-\$ or US-3211034-\$ or US-3440909-\$ or US-3211034-\$ or JP-07097656-\$ or JP-07034190-\$ or JP-07300653-\$ or JP-09176785-\$ or JP-09176786-\$ or JP-09176786-\$ or JP-09176786-\$ or JP-09176786-\$ or JP-09176785-\$ or JP-09176786-\$ or JP-09176786-\$ or JP-09176786-\$ or JP-09176785-\$ or JP-09176786-\$ or JP-09176785-\$ or JP-09176786-\$ or JP-091767	S26	0		USPAT	OR	OFF.	2007/03/23 13:10
US-3119292-\$ or US-6035688-\$ or US-6009783-\$ or US-5845553-\$ or US-5247862-\$ or US-4785695-\$ or US-4463637-\$ or US-321034-\$).did. or (JP-07097656-\$ or JP-58215237-\$ or JP-60102245-\$ or JP-09176785-\$ or JP-09176786-\$).did.  S29  0 spheroidiz\$3 and draw\$3 and forg\$3 USPAT  OR  OFF  2007/03/23 13:24	S27	68	spheroidiz\$3 and draw\$3 and forg\$3	USPAT	OR	OFF	2007/03/23 13:11
	S28	20	US-3119292-\$ or US-6035688-\$ or US-6009783-\$ or US-5845553-\$ or US-5247862-\$ or US-4785695-\$ or US-4463637-\$ or US-3570343-\$ or US-3211034-\$).did. or (JP-07097656-\$ or JP-58215237-\$ or JP-60102245-\$ or JP-07034190-\$ or JP-07300653-\$ or JP-09176785-\$		OR	OFF	2007/03/23 13:24
	S29	0		USPAT	OR	OFF	2007/03/23 13:24

## **EAST Search History**

S30	0	spheroidiz\$3 and draw\$3 and forg\$3 and S28	USPAT	OR	OFF	2007/03/23 13:25
S31	87	"medium carbon steel" and martensite	USPAT	OR	OFF	2007/03/23 15:15

3/26/2007 9:36:29 AM C:\Documents and Settings\wzhu\My Documents\EAST\Workspaces\10-789322.wsp